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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,473	10/07/2005	Sebastian John Corlette	4412-16	2188

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EXAMINER	
GUPTA, VANI	
ART UNIT	PAPER NUMBER
3768	
MAIL DATE	DELIVERY MODE
06/24/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/552,473	CORLETTE ET AL.	
	Examiner	Art Unit	
	VANI GUPTA	3768	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 March 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *20-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *20-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 March 2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the Applicant's Arguments filed on 13 March 2008.

2. The Amendment filed on 13 March 2008 has been entered. Claims 20, 22 – 30, 32, and 33 are currently amended; Claims 21 and 31 are original. Claims 1 – 19 are cancelled. Claims 34 – 36 are new. Accordingly, Claims 20 – 36 are pending.

3. Examiner acknowledges amendments made to the Specification, filed on 13 March 2008.

4. Examiner acknowledges Amendment to the Abstract. Therefore, the objection to the Abstract is withdrawn.

5. The drawings were received on 13 March 2008. These drawings are acceptable. Therefore, the previous objection in regards to the Drawings withdrawn.

6. Examiner acknowledges amendments to Claims 20 – 24. Therefore, the previous 35 U.S.C. §101 rejection of these claims is withdrawn in light of Applicant's amendment(s).

Drawings

7. Examiner acknowledges Replacement Sheets of the corrected drawing figure(s), filed on 13 March 2008.

Specification

8. Examiner acknowledges Replacement Sheet of the Abstract, filed on 13 March 2008.

Claim Rejections - 35 USC § 103

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. **Claims 20 – 32 and 34 – 36** are rejected under 35 U.S.C. 103(a) as being obvious over *Mawhinney (4,991,585), in view of Larsen (4926868).*

Regarding **Claim 20, 21, 25, and 36**, Mawhinney discloses a device for monitoring an opaque body, comprising:

a. At least one low power microwave emitter for locating adjacent said opaque body (Abstract, Lines 1 – 4);

b. A microwave detector for detecting fluctuations in the scattering characteristics from said opaque body (Abstract, Lines 4 – 8).

c. A signal processing means for analyzing said fluctuations from the body so as to thereby derive characteristics about said body (Abstract, Lines 8 – 14).

Mawhinney differs from Claim 1 in that does he not specifically disclose that the:

a. Device monitors the opaque body by categorizing scattering characteristics of said opaque body at microwave frequencies; and

b. Signal processor analyzes the fluctuations of the body to calculate scattering parameters for providing a measure indicative of said fluctuations in the scattering characteristics.

However, Larsen teaches a device and method for physiological monitoring, using a measurement technique consisting of a network analysis of the power wave scattering parameter in forward scatter configurations of various projections (Abstract).

Accordingly, Larsen complements Mawhinney by teaching that his invention is for the purposes of monitoring cardiac hemodynamics utilizing microwave technology (col. 2, lines 7 - 8).

Regarding **Claim 21**, Mawhinney discloses that the emitter and detector of the device are formed as one unit (Column 2, Lines 48 – 49).

Regarding **Claims 22 and 23**, Mawhinney discloses that the signal processing means extracts a heart rate and respiration rate from fluctuations in an opaque body (Column 1, Lines 10 – 12; Lines 48 – 52).

Regarding **Claim 24**, Mawhinney discloses that aid device is portable and located near the chest of the human (Column 2, Lines 49 – 50; Figure 1 and Column 2, 46 – 51).

Regarding **Claim 25**, Mawhinney discloses that a method of monitoring fluctuations in the density of an opaque body comprises locating a low power microwave emitter adjacent said opaque body (Column 4, Lines 24 – 35).

Mawhinney differs from Claim 25 in that he does not specifically disclose monitoring the scattering properties of said opaque body so as to produce a monitor signal. Nor does he disclose utilizing fluctuations in said monitor signal over time to infer fluctuations in said opaque body.

However, Larsen teaches theses aspects of Claim 25. Please see above paragraphs for further explanations.

Regarding **Claims 26 and 34**, Larsen discloses that processing for analyzing said fluctuations from the body so as to thereby derive characteristics about said body includes calculating two-port scattering parameters s_{11}, s_{12}, s_{21}, and s_{22}, for analyzing said fluctuations in said monitor signal (col. 4, lines 1 – 13; col. 6, lines 37 – 62).

Regarding **Claims 27 and 28**, Mawhinney discloses that fluctuations for a human body include alterations in a blood flow and respiration rates (col. 5, lines 38 – 45).

Regarding **Claim 29**, Mawhinney discloses that the low power microwave emitter is configured to be located adjacent a chest of a human body (Column 2, Lines 47 – 53).

Regarding **Claim 30**, Mawhinney discloses that low power microwave emitter includes at least one output antenna and least one input antenna (Column 2, Lines 63 – 68 through Column 3, Lines 1 – 8).

Regarding **Claim 31**, Mawhinney discloses that the low power microwave emitter includes only one antenna (Figure 2, #200).

Regarding **Claim 35**, Larsen teaches fluctuations are indicative of the density of the opaque body (col. 4, lines 23 – 26).

Regarding **Claim 36**, Mawhinney low power microwave emitter includes at least one output antenna and said microwave detector includes at least one input antenna (see rejections for Claim 20 and 21).

Therefore, it is prima facie obvious to combine the teachings of Mawhinney, Larsen, and Sharpe to obtain the instant invention presented in Claims 20 – 31 and 34 – 36.

12. ***Claims 32 and 33*** *rejected under 35 USC 103(a) as being obvious over the prior art as applied in the immediately preceding paragraphs and in further view of Sharpe et al. US Patent 4,958,638.*

Regarding **Claim 32**, Mawhinney and Larsen teach that a remote monitoring system for monitoring a series of patients at remote locations, said monitoring system including:

a. A plurality of portable monitoring devices for monitoring a human body by categorizing scattering characteristics of said opaque body at microwave frequencies, each of said device further including a wireless communications interface for communicating said measure with a spatially separated base station (Column 5, Lines 26 – 31; and previous paragraphs of rejections);

b. One or more base stations, each further interconnected with an information distribution network, wherein said base stations are adapted to receive said measure from at least one of said portable monitoring units and forwarding said measure to a centralized computing and storage resource (Figure 2, #218; and Column 5, Lines 25 – 31); and

c. A centralized computing and storage resource for receiving, storing (Column 1, Lines 45 – 62) and monitoring (Column 5, Lines 26 – 31; and previous paragraphs of rejections) said measure.

Regarding Claim 33, Mawhinney discloses the above elements of the aforementioned claims.

Mawhinney differs from Claim 33 in that he does not appear to explicitly disclose analysis means for analyzing characteristics for predetermined behaviors and raising a notification alarm upon the occurrence of said predetermined behaviors.

However, Sharpe et al. teaches analysis means for analyzing said characteristics for predetermined behaviors (Figure 1, #80; and Column 3, Lines 67 – 68 through Column 4, Lines 1 –2) and raising a notification alarm upon the occurrence of said predetermined behaviors (Column 1, 49 – 54).

Accordingly, Sharpe complements Mawhinney and Larsen in that he teaches an apparatus for measuring simultaneous physiological parameters such as heart rate and respiration without physically connecting electrodes or other sensors to the body.

Therefore, it is prima facie obvious to combine the teachings of Mawhinney, Larsen, and Sharpe to obtain the instant invention presented in Claims 32 and 33.

Response to Arguments

1. Applicant's arguments with respect to claims 20 – 36 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VANI GUPTA whose telephone number is (571)270-5042. The examiner can normally be reached on Monday - Thursday; 7:30 - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brian L Casler/
Supervisory Patent Examiner, Art Unit 3737

/V. G./
/Vani Gupta/
Examiner, Art Unit 3768